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Pyrops nishiguroi n. sp., a new Fulgoridae from Philippines, with some notes on the *Pyrops oculatus* group (Hemiptera: Fulgoromorpha)

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Fulgorinae ; taxonomy ;
Laternarini ; new species.

Abstract. – A new Fulgoridae, *Pyrops nishiguroi* n. sp., collected in Palawan (Philippines) is described and illustrated. *Pyrops alboroseus* Liang, 1998 **stat. nov.** is elevated to specific rank. Some new localities are given for *Pyrops oculatus*.

Nagai S., Porion T. & Audibert C., 2017. – *Pyrops nishiguroi* n. sp., a new Fulgoridae from Philippines, with some notes on the *Pyrops oculatus* group (Hemiptera: Fulgoromorpha). *Faunitaxys*, 5(1): 1 – 5.

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Introduction

About hundred species occurring in South-East Asia are known in the genus *Pyrops*.

Pyrops oculatus is a group of species distributed through in the Malay Peninsula, Indonesia, Borneo and Philippines. It includes many forms listed in the synonymy in Nagai & Porion (1996). One of them, *Pyrops oculatus sidereus*, had been recently elevated to the status of species (Bosuang *et al.*, 2017). Another one, *Pyrops oculatus alboroseus* is regarded in this paper as another valid species. Probably others “*oculatus*” forms as *Pyrops fulvirostris* from Sri Lanka could see their status changed. In this paper, we describe a new species, *Pyrops nishiguroi* n. sp., belonging to this group and occurring in the Philippines.

The name *Pyrops* is regarded as masculine (ICZN: Art. 30.1.4.3. "A compound genus-group name ending in -ops is to be treated as masculine, regardless of its derivation or of its treatment by its author"). Liang (1998) and Constant (2015) applied the gender agreement.

Abbreviations

- **MHNL**: Centre de Conservation et d'Étude des Collections, Lyon, France.
- **BMNH**: British Museum Natural History, London, United Kingdom.
- **EUMJ**: Ehime University Museum, Matsuyama, Ehime, Japan.
- **FSAG**: Faculté des Sciences Agronomiques de Gembloux, Belgium.
- **OUMNH**: University Museum of Natural History, Oxford, United Kingdom.
- **PORION**: Thierry Porion Personal collection, Jaujac, France.

Taxonomy

Pyrops oculatus (Westwood, 1839)

Type: OUMNH (coll. Hope-Westwood).

This species is common (new localities with *):

– **Malaysia:** Cameron Highlands (MHNL and coll. T. Porion); Penang isl. (Nagai & Porion, 1996).

– **Singapore:** Leong *et al.*, 2009; Chew Lun Chan com. pers. 2017.

– **Indonesia:**

Islands west of Sumatra: *Masa isl. (MHNL); Nias isl. (Nagai & Porion, 1996); Siberut isl. (Nagai & Porion, 1996).

W. Sumatra: *Kerinci; *Marapi Mt.; *Padang; *Payakumbuh; *Singalang; *Solok; *Talang Mt. (all in MHNL).

E. Sumatra: *Jambi (coll. T. Porion).

S. Sumatra: Sukadana (misspelled Soekadam) (Nagai & Porion, 1996: pl. 14, fig. 188).

Riau Islands: *Natuna isl. (coll. T. Porion).

Pyrops sidereus (Distant, 1905)

Fulgora siderea Distant, 1905: 566.

Pyrops oculata siderea (Distant, 1905): Lallemand, 1963: 77.

Pyrops oculatus sidereus (Distant, 1905): Liang, 1998: 44.

Pyrops sidereus (Distant, 1905): Bosuang *et al.*, 2017: 104.

Type: BMNH (coll. Distant).

Previously, this species was considered as a subspecies of *Pyrops oculatus*. The forewings of this species are bright orange-yellow to green (usually males are more green, females tending more to yellow-orange) and the hindwings are red on the apical third. *Pyrops esteban* Nagai & Porion, 2002 is a synonym.

This species is endemic of Borneo where it occurs in the north-eastern parts: Crocker Range, Sabah and Bakayan, E. Kalimantan (MHNL).

***Pyrops alboroseus* Liang, 1998 nov. stat.**

(Fig. 1 & 2)

Fulgora oculata f. *alborosea* Lallemand, 1963: 77 (nom. invalid.).*Pyrops oculata alborosea* (Lallemand, new. comb.): Liang, 1998: 44.**Type:** Gembloux (coll. Lallemand).

Initially described as a form of *Pyrops oculus* by Lallemand (1963); the infra-subspecific names, published after 1960 are considered as invalid (Art. 13.1.2). Liang (1998) made it available by mentioning a reference to the original description with the page number of the description. We elevate it to specific rank based on important differences with *Pyrops oculus*. *Pyrops alboroseus* occurs in W. Java only.

Material examined

- Sancang, W. Java, 3/03, coll. T. Porion, 1 ex. male (CCEC).
- Sancang, W. Java, 8/07, coll. T. Porion, 2 ex. female (CCEC).
- W. Java, different dates, coll. T. Porion, 6 ex. (PORION).
- Sancang, W. Java, I. 2000, 2 ex., Minoru Sawai coll. (Japan).

A specimen, illustrated in Nagai & Porion (1996, pl. 14, fig. 186) under “*Pyrops oculata*”, with these data: W. Java, 6-800 m., Djampang Tengah G. Tjisoeroe, IX-1933, M. E. Walsh leg. (FSAG), belongs to this species.

Description.

Male (Fig. 1). – *Wingspan* 66 to 68 mm., – *Head* and *thorax* beige, *pronotum* with two black spots and *mesonotum* with two black spot on each side of the median carina. – *Head process* spangled with very small white points, very long, equals about the length of the whole body and bent up in the apical half only. – *Abdomen* beige. – *Legs* beige to dark grey, with black *tarsa*. – *Elytra* are more or less regularly covered by around 25 white rounded tawny small spots, all more or less circular, spangling the whole surface. – Some *interveins* sometimes filled of small black points in 2 or 3 small areas irregular and asymmetric in the anal zone of the elytra. – *Hindwings* translucent white with one very remarkable red or pink-red large area from base filling about one third of the white wing.

Female (Fig. 2). – Similar except size: *wingspan* 77 to 80 mm.

Differential diagnosis. – Lallemand (1963: 77) tells us that *Pyrops alborosea* is easily recognized from *Pyrops oculata* by the lack of any brown or black spot on the wings (hindwings), and these are not green at the base, as on *Pyrops oculata*.

***Pyrops nishiguroi* n. sp.**

(Fig. 3-5)

ZooBank : <http://zoobank.org/35127AF1-5B17-483E-8E79-E2DE2A3EE778>

Material examined**Holotype** ♂: Philippines, Palawan isld., Mt. Gantung, 25 June 2016.**Allotype**, ♀ : Philippines, Palawan isld., Mt. Mantalingayan, may 2016, both in EUMJ, Matsuyama, Ehime, Japan.**Paratypes:**

- 2 ♂: same locality and same date than Allotype (Mt. Mantalingayan), in EUMJ.
- 1 ♂: same locality and date than Holotype, in coll. Thierry Porion.
- 1 ♀: same locality and date than Allotype, in CCEC, Lyon, France.

Description.

Male (Fig. 3). – *Wingspan* 59,4 to 72 mm. – *Head* dark brown, *thorax* beige, *pronotum* immaculate and *mesonotum* with two black spot on each side of the median carina. – *Head process* dark brown spangled with very small white points, very long and strong, equals about the length of the whole body and bent up slightly and regularly from the eyes (Fig. 5). – *Abdomen* beige. – *Legs* beige to dark grey, with black *tarsa*. – *Elytra* more or less regularly covered by many yellow-orange small spots, all more or less circular, spangling the whole surface, most are rounded by white areas that makes the main elytra ground color appear white. – *Interveins* filled of black points in some small areas irregular and asymmetric near the center of the elytra, and, all along the external edge of the elytra, from costa, media to cubitus alternates these black areas with white zones including a yellow spot, while media being nearly continuously black including the yellow-orange spots. – *Hindwings* translucent white with one very remarkable orange/red large area from base filling about one third of the white wing.

Female (Fig. 4). – Similar except size: *wingspan* 76 to 82 mm.

Differential diagnosis. – General colors and designs of *Pyrops nishiguroi* make it look very similar to *Pyrops oculus*. The main difference that allow to recognize *Pyrops nishiguroi* at first glance is the much higher number of spots on the elytra: while all *Pyrops oculus* always count around 25 small round orange spots, the examined specimens of *Pyrops nishiguroi* all have around 50 to 60 small yellow-orange spots. – The head process is stronger and more slightly and regularly bent up (Fig. 5), and, most of all, the very different shape of the elytra much more rounded at the apex on *Pyrops nishiguroi* makes it clearly recognizable.

Etymology. – This new species is dedicated to Mr. Kei Nishiguro.

本新種の種名はフィリピンで活躍されている永井の友人である西黒圭氏に献名された。

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Fig. 1. - *Pyrops alboroseus* Liang, 1998 *stat. nov.*, ♂, Sancang, West Java, 68 mm (PORION).



Fig. 2. - *Pyrops alboroseus* Liang, 1998 *stat. nov.*, ♀, Sancang, West Java, 73 mm (PORION).



Fig. 3. - *Pyrops nishiguroi* n. sp., paratype ♂, Mt Gantung, Palawan isld. Philippines, 68,5 mm (PORION).



Fig. 4. - *Pyrops nishiguroi* n. sp., paratype ♀, Mt Mantalingayan Palawan isld. Philippines, 77 mm (MHNL).



Fig. 5. - *Pyrops nishiguroi* n. sp., paratype ♀, Mt Mantalingayan, Palawan isld. Philippines (MHNL) : head process.



Fig. 6. - Philippines, Malaysia, Indonesia. Made with « SimpleMappr ».

- : *Pyrops oculatus* (Westwood, 1839)
 ● : *Pyrops alboroseus* Liang, 1998 **nov. stat.**
 ● : *Pyrops sidereus* (Distant, 1905)
● : *Pyrops nishiguroi* n. sp.

Résumé

Nagai S., Porion T. & Audibert C., 2017. – *Pyrops nishiguroi* n. sp., un nouveau Fulgoridae des Philippines. Notes sur le groupe de *Pyrops oculatus* (Hemiptera: Fulgoromorpha). *Faunitaxys*, 5(1): 1 – 5.

Un nouveau Fulgoridae, *Pyrops nishiguroi* n. sp., collecté à Palawan (Philippines), est décrit et illustré. *Pyrops alboroseus* Liang, 1998 **stat. nov.** est élevé au rang d'espèce. Des localités nouvelles sont données pour *Pyrops oculatus*.

Mots-clés. – Hemiptera, Fulgoromorpha, Fulgoridae, Fulgorinae, Laternarini, *Pyrops*, Palawan, Philippines, taxonomie, espèce nouvelle.

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